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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,848	01/11/2002	Vincent Millot	34284	4174

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Pearne Gordon McCoy & Granger
Suite 1200
526 Superior Avenue East
Cleveland, OH 44114-1484

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/030,848	Applicant(s) MILLOT ET AL.	
	Examiner Callie E. Shosho	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1/11/02 + 2/15/02
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 8, line 27 of the present specification when referring to the dioxolane states "Its schematic formula is as follows:". However, this phrase is not followed by a schematic formula. Thus, it appears a formula is missing from page 8.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claim 1 recites the limitation "the ionisable species" in lines 8-9. There is insufficient antecedent basis for this limitation in the claim given that there is no previous disclosure of "ionisable species" in the claim.

(b) Claim 4 recites an improper Markush group. It is suggested in line 2, after "are", that "chosen from" is deleted and "selected from the group consisting of" is inserted. Similar

suggestions are made in claims 7, 13, and 14 which each recite the same improper Markush language as claim 4.

(c) Claim 5 recites "monoalkylic ether (in C1 to C6) or dialkyllic (in C1 to C6)". The scope of the claim is confusing because it is not clear what is meant by "in C1 to C6". Does this refer to the number of carbon atoms in the alkyl group?

(d) A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 5 recites the broad recitation "monoalkylic ether (in C1 to C6) or dialkyllic (in C1 to C6) glycol alkylenes comprising 1 to 10 carbon atoms in the alkylene chain", and the claim also recites "such as ethylene glycol or propylene glycol" which is the narrower statement of the range/limitation.

(e) Claim 5, lines 8-9 recites "esters of these with saturated aliphatic carboxylic acids with 1 to 6 carbon atoms". The scope of the claim is confusing because it is not clear what "these" is referring to. Clarification is requested.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8, 10-11, and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Trauernicht et al. (U.S. 6,247,801).

Trauernicht et al. disclose ink jet ink comprising carrier medium comprising 0-90% water and 10-100% organic solvent including solvent comprising 1,3-dioxolane, 0.05-20% colorant including dye or pigment including CI Pigments, 2-20% penetrant including alcohols and ketones, 0.01-15% binder including polyurethane, 5-70% humectant including ethylene glycol and glycol ethers, and additives such as defoamer, surfactant, biocide, and pH adjustor. It is further disclosed that the ink is printed onto substrate using continuous ink jet printing process (col.2, lines 3-15 and 50, col.3, line 59-col.4, line 64, and col.5, lines 3-5, 15-26, and 40).

In light of the above, it is clear that Trauernicht et al. anticipate the present claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trauernicht et al. (U.S. 6,247,801) in view of Zahrobsky et al. (U.S. 5,510,415).

The disclosure with respect to Trauernicht et al. in paragraph 5 above is incorporated here by reference.

The difference between Trauernicht et al. and the present claimed invention is the requirement in the claims of conductivity salt.

Zahrobsky et al., which is drawn to ink jet ink, disclose the use of up to 3% conductivity salt such as potassium thiocyanate or lithium nitrate in order to ensure that the ink possesses suitable conductivity (col.4, lines 16-25).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use conductivity salt in the ink of Trauernicht et al. in order to produce ink with suitable conductivity for printing, and thereby arrive at the claimed invention.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 06306316 discloses ink jet ink comprising polymer, 1,3-dioxolane, ketone, and glycol ether, however, the ink is aqueous-based which is in direct contrast to the present claims which require that the ink comprise less than 5% water.

JP 2002020670 discloses gravure ink comprising 1,3-dioxolane, however, given the effective filing date of the reference, it is not applicable against the present claims under any subsection of 35 USC 102.

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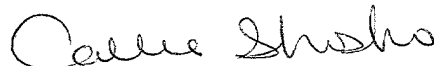
Nelson et al. (U.S. 5,395,432) disclose ink jet ink comprising colorant, alcohol, ketone, and binder, however, there is no disclosure or suggestion of 1,3-dioxolane as required in the present claims.

Morelos et al. (U.S. 5,637,135) disclose ink jet ink comprising colorant, binder, and propylene glycol, however, there is no disclosure or suggestion of 1,3-dioxolane as required in the present claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
8/26/03